C l a i m s

1. A tensioning device (15) for a riser (5) connecting a subsea borehole (7) with a floating installation (1) on the surface of the sea (11), where the tensioning device (15) is provided with telescoping tubes (27, 27') and also several evenly spaced hydraulic cylinders (31, 31') arranged in a peripherally encircling manner and mainly in the longitudinal direction of the riser, and where the tension in the riser is exerted through hydraulic pressure in said cylinder (31, 31'),
c h a r a c t e r i z e d i n that the tensioning device (15) consists of two successive, interconnected telescopic tensioning units (23, 25), the tensioning units (23, 25) being designed separately to maintain a prescribed tension in the riser (5).

2. A method of maintaining tension in a riser (5) in accordance with Claim 1, c h a r a c t e r i z e d i n that the rapid changes in the vertical position of a floating installation (1) relative to a seabed (9) are compensated for by an upper tensioning unit (23) maintaining a prescribed tension in the riser (5), and that the slow changes in the vertical position of the floating installation (1) relative to the seabed (9) are compensated for by a lower tensioning unit maintaining the prescribed tension in the riser (5), and that the upper or lower tensioning unit (23, 25) alone maintains the prescribed tension in the riser (5) in a situation where one of the tensioning units is out of operation.